

ABSTRACT OF THE INVENTION

An indoor GPS clock using GPS signals lower than -143 dBm for issuing disciplined frequency and time standard signals. The indoor GPS clock includes a correlation machine using long integration periods for enabling the indoor GPS clock to
5 operate with low signal levels; a carrier-less tracking loop for tracking the low level signals without carrier offset feedback, a clock bias loop for providing clock bias feedback; and a reference oscillator using the clock bias feedback for providing disciplined frequency and time signals having greater accuracy than is available in conventional GPS positioning receivers. The indoor GPS clock also includes a holdover
10 driver providing compensation for predicted drift in clock bias error for disciplining the reference oscillator for several hours when the GPS signal is no longer being received.